

## WHAT IS CLAIMED IS:

1. An inductor component having a core comprising:  
a hollow core piece; and  
a rod core piece which is arranged across the hollow core piece;  
wherein joining is performed between the hollow core piece and the  
bottom surfaces of both end portions of the rod core piece with bonded magnets  
therebetween.
2. An inductor component having a core comprising:  
a hollow core piece having two concave portions; and  
a rod core piece which is arranged across the hollow core piece;  
wherein joining is performed between the bottom surfaces of both end  
portions of the rod core piece and each concave portion of the hollow core  
piece with bonded magnets therebetween.
3. An inductor component having a core comprising:  
an upper hollow core piece;  
a lower hollow core piece; and  
a rod core piece,  
wherein the rod core piece is held between the upper hollow core piece  
and lower hollow core piece, and is arranged across each of the hollow core  
pieces;  
joining being performed between the top surfaces of both end portions  
of the rod core piece and the upper hollow core piece with bonded magnets  
therebetween; and  
joining being performed between the bottom surfaces of both end  
portions of the rod core piece and the lower hollow core piece with bonded  
magnets therebetween.
4. The inductor component claimed in claims 1 to 3, wherein:

the bonded magnet has a resistivity of 1  $\Omega\text{cm}$  or more and is formed from a resin; and

the resin contains 30% by volume or more of rare-earth magnet powder having a  $T_c$  of 500°C or more and an average particle diameter of 2.5 to 50  $\mu\text{m}$ , has an intrinsic coercive force of 10 KOe or more, and is one selected from the group consisting of a polyimide resin, epoxy resin, poly(phenylene sulfide) resin, silicone resin, polyester resin, aromatic nylon, liquid crystal polymer resin, and a complex thereof.

5. The inductor component claimed in claim 4, wherein a magnet powder of the bonded magnet is subjected to a surface treatment with a dispersing agent of a silane coupling agent or a titanium coupling agent prior to mixing with the resin.

6. The inductor component claimed in claim 5, wherein the hollow core piece and the rod core piece are magnetic core pieces comprising MnZn-based or NiZn-based ferrite, silicon steel, or amorphous material.

2025-01-02 10:00:00